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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/558,384	09/05/2006	Akihiro Goto	Q91743	4167

23373 7590 12/30/2010

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EXAMINER	
HORNING, JOEL G	

ART UNIT	PAPER NUMBER
1712	

NOTIFICATION DATE	DELIVERY MODE
12/30/2010	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Advisory Action Before the Filing of an Appeal Brief	**Application No.** 10/558,384	**Applicant(s)** GOTO ET AL.	
	Examiner JOEL G. HORNING	**Art Unit** 1712	

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 08 December 2010 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:
   a) ☒ The period for reply expires *3* months from the mailing date of the final rejection.
   b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

   Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☒ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
   (a) ☒ They raise new issues that would require further consideration and/or search (see NOTE below);
   (b) ☐ They raise the issue of new matter (see NOTE below);
   (c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
   (d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

   NOTE: *See Continuation Sheet*. (See 37 CFR 1.116 and 41.33(a)).
4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
5. ☐ Applicant's reply has overcome the following rejection(s): _____.
6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7. ☒ For purposes of appeal, the proposed amendment(s): a) ☒ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
   The status of the claim(s) is (or will be) as follows:
   Claim(s) allowed: _____.
   Claim(s) objected to: _____.
   Claim(s) rejected: *90,92-115 and 144-147*.
   Claim(s) withdrawn from consideration: _____.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
10. ☒ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: See Continuation Sheet.
12. ☐ Note the attached Information *Disclosure Statement*(s). (PTO/SB/08) Paper No(s). _____
13. ☒ Other: See Continuation Sheet.

/David Turocy/
Primary Examiner, Art Unit 1715

/JOEL G HORNING/
Examiner, Art Unit 1712

Continuation of 3. NOTE: The amendments to the claims change the scope of the claims and add a new limitation, requiring that the particles be not spherical. Further search and consideration would be required to determine the patentability of these claims..

Continuation of 11. does NOT place the application in condition for allowance because:

Applicant argues that Imai teaches choosing the energy levels to suit the size of the particles used in the compression molded electrode and this is an indication that the energy levels are result effective variables, but not that the particle size is a result effective variable. However, the particle size is taught to determine what the optimal energy levels are for the production of a desirable film, with smaller particles requiring less energy. Thus the particle size is a result effective variable for controlling the energy levels used in the process.

The current claims do not require that the particle size be less than 1 micron in size.

As was discussed on page 8 of the rejection, the deposited film is composed of the material from the electrode, so Saito teaches that the practitioner chooses for the electrode powder material, the material that the resulting film is to be made of. For the material, Saito exemplifies several different metallic materials [0016]. It would be obvious to choose one or more of these materials for the powder in order to deposit a film of a desired composition, such as a protective nickel layer. Imai does not need to teach metallic powders, because Saito was used to teach that particular limitation.

Regarding applicant's argument that the applied art does not teach utilzing a 10 nm powder, the claim does not require that the powder be 10nm in diameter, only that it be not less than 10nm and not greater than 1 micron in size. Which the art does teach.

Applicant argument that using a volume ratio of between 5 and 60% of the larger powder is critical for producing a dense film. Applicant cites pages 54-56 of their specification and figures 15 and 16 to provide evidence of this. However, the provided evidence is not commensurate in scope with what is claimed to support applicant's position of alleged unexpected results from using this range. Figure 15 allegedly shows the relationship between the amount of large powder in the sample and the resulting density of the film. However, it is a drawing, not experimental data and it is entirely unknown what went into determining the shape of the drawing. There is only one exemplary showing of a relationship between the amount of large powder in the electrode and the resulting film density. A single example is insufficient to show that such a relationship would be present in other materials or for other particle diameters or for other electrode currents. This example is shown in the SEM micrographs of figures 14A,B,D. These are only three micrographs pertaining to the alleged relationship and it is unclear from these micrographs if the alleged relationship is present . Morover, this example lacks experimental details which would help the examiner determine if such a relationship (if shown) would even be due to the amount of large particles in the electrode or some other factor. All experimental parameters other than the amount of large particles and the energy supplied are unknown, and since the film with more of the larger particles is much thicker than the others, this appears likely. The sizes of the particles used or the materials they were made from are unknown. From this showing unexpected results cannot be concluded.

Regarding applicant's argument that the packing of electrodes greater than 5% is unexpected, the examiner disagrees. As evidenced by the Liu reference (for example, figure 2) which was utilized in the rejection, an increase in packing efficiency is what is expected when a small amount of a different sized particle is added to the compact. Regarding applicants assertion that Liu is theoretical, it is what was known at the time of invention.

The current claims do not require that the particles be aspherical.

Regarding applicant's argument of the doublepatenting rejection over US 7641945, '945 forms the powder into a "compact," so it is compressed, the particle size range overlaps and it is obvious to use a film deposition technique to deposit films of a desired thickness, such as 100 micrometers or greater in thickness.

Continuation of 13. Other: The affidavit is an official translation of the Imai reference used in the current rejection. The examiner thanks the applicant for supplying the reference.